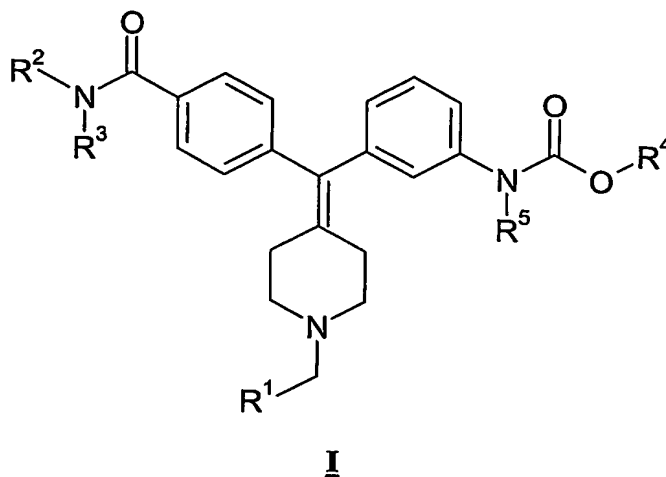


**What is claimed is :**

1. A compound of formula I, a pharmaceutically acceptable salt thereof, diastereomers, enantiomers, or mixtures thereof:



wherein

- $R^1$  is selected from  $C_{6-10}$ aryl and  $C_{2-6}$ heteroaryl, wherein said  $C_{6-10}$ aryl and  $C_{2-6}$ heteroaryl are optionally substituted with one or more groups selected from -R, -NO<sub>2</sub>, -OR, -Cl, -Br, -I, -F, -CF<sub>3</sub>, -C(=O)R, -C(=O)OH, -NH<sub>2</sub>, -SH, -NHR, -NR<sub>2</sub>, -SR, -SO<sub>3</sub>H, -SO<sub>2</sub>R, -S(=O)R, -CN, -OH, -C(=O)OR, -C(=O)NR<sub>2</sub>, -NRC(=O)R, and -NRC(=O)-OR, wherein R is, independently, a hydrogen or  $C_{1-6}$ alkyl; and

- $R^2$ ,  $R^3$ ,  $R^4$  and  $R^5$  are, independently, selected from hydrogen,  $C_{1-6}$ alkyl, and  $C_{3-6}$ cycloalkyl, wherein said  $C_{1-6}$ alkyl and  $C_{3-6}$ cycloalkyl are optionally substituted with one or more groups selected from -R, -NO<sub>2</sub>, -OR, -Cl, -Br, -I, -F, -CF<sub>3</sub>, -C(=O)R, -C(=O)OH, -NH<sub>2</sub>, -SH, -NHR, -NR<sub>2</sub>, -SR, -SO<sub>3</sub>H, -SO<sub>2</sub>R, -S(=O)R, -CN, -OH, -C(=O)OR, -C(=O)NR<sub>2</sub>, -NRC(=O)R, and -NRC(=O)-OR, wherein R is, independently, a hydrogen or  $C_{1-6}$ alkyl.

2. A compound according to claim 1,

wherein  $R^1$  is selected from phenyl; pyridyl; thienyl; furyl; imidazolyl; triazolyl; pyrrolyl; thiazolyl; and N-oxido-pyridyl, wherein  $R^1$  is optionally substituted with one or more groups selected from  $C_{1-6}$ alkyl, halogenated  $C_{1-6}$ alkyl, -NO<sub>2</sub>, -CF<sub>3</sub>,  $C_{1-6}$  alkoxy, chloro, fluoro, bromo, and iodo;

$R^2$ ,  $R^3$ , and  $R^4$  are, independently,  $C_{1-3}$ alkyl or halogenated  $C_{1-3}$ alkyl;

$R^5$  is selected from hydrogen,  $C_{1-6}$ alkyl, and  $C_{3-6}$ cycloalkyl, wherein said  $C_{1-6}$ alkyl and  $C_{3-6}$ cycloalkyl are optionally substituted with one or more groups selected from  $C_{1-6}$ alkyl, halogenated  $C_{1-6}$ alkyl,  $-NO_2$ ,  $-CF_3$ ,  $C_{1-6}$  alkoxy, chloro, fluoro, bromo, and iodo.

3. A compound according to claim 1,

wherein  $R^1$  is selected from phenyl; pyridyl; thienyl; furyl; imidazolyl; pyrrolyl; and thiazolyl, wherein  $R^1$  is optionally substituted with one or more groups selected from  $C_{1-6}$ alkyl, halogenated  $C_{1-6}$ alkyl,  $-NO_2$ ,  $-CF_3$ ,  $C_{1-6}$  alkoxy, chloro, fluoro, bromo, and iodo;

$R^2$ ,  $R^3$ , and  $R^4$  are, independently,  $C_{1-3}$ alkyl or halogenated  $C_{1-3}$ alkyl; and  $R^5$  is hydrogen.

4. A compound according to claim 1,

wherein  $R^1$  is selected from phenyl, pyridyl, thienyl, furyl, imidazolyl, pyrrolyl, and thiazolyl;

$R^2$  and  $R^3$  are ethyl;

$R^4$  is  $C_{1-3}$ alkyl; and

$R^5$  is hydrogen.

5. A compound according to claim 1, wherein the compound is selected from:

[3-[[4-[(diethylamino)carbonyl]phenyl][1-(2-thienylmethyl)-4-piperidinyldene]methyl]phenyl]- carbamic acid, methyl ester;

[3-[[4-[(diethylamino)carbonyl]phenyl][1-(2-furanylmethyl)-4-piperidinyldene]methyl]phenyl]- carbamic acid, methyl ester;

[3-[[4-[(diethylamino)carbonyl]phenyl][1-(phenylmethyl)-4-piperidinyldene]methyl]phenyl]-carbamic acid, methyl ester;

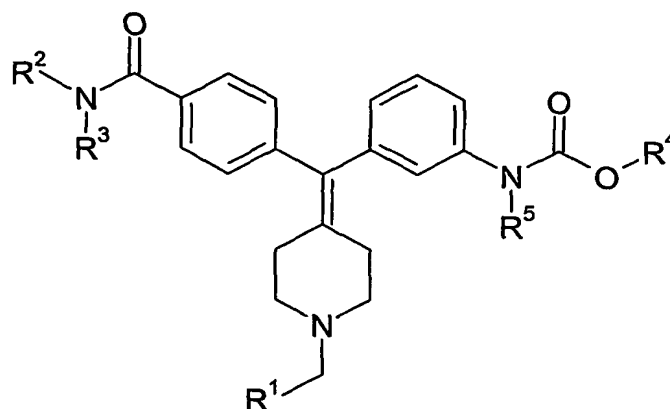
methyl 3-{{4-[(diethylamino)carbonyl]phenyl}[1-(1,3-thiazol-4-ylmethyl)piperidin-4-ylidene]methyl}phenylcarbamate;

5 methyl 3-{{4-[(diethylamino)carbonyl]phenyl}[1-(1,3-thiazol-5-ylmethyl)piperidin-4-ylidene]methyl}phenylcarbamate;

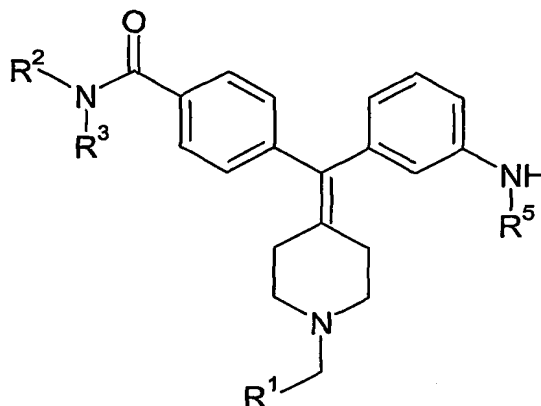
and pharmaceutically acceptable salts thereof.

- 10 6. A compound according to any one of claims 1-5 for use as a medicament.
7. The use of a compound according to any one of claims 1-5 in the manufacture of a medicament for the therapy of pain, anxiety or functional gastrointestinal disorders.
- 15 8. A pharmaceutical composition comprising a compound according to any one of claims 1-5 and a pharmaceutically acceptable carrier.
- 20 9. A method for the therapy of pain in a warm-blooded animal, comprising the step of administering to said animal in need of such therapy a therapeutically effective amount of a compound according to any one of claims 1-5.
- 25 10. A method for the therapy of functional gastrointestinal disorders in a warm-blooded animal, comprising the step of administering to said animal in need of such therapy a therapeutically effective amount of a compound according to any one of claims 1-5.
11. A process for preparing a compound of formula I, comprising:

49

I

reacting a compound of formula II with  $X-C(=O)-O-R^4$ :

II

5

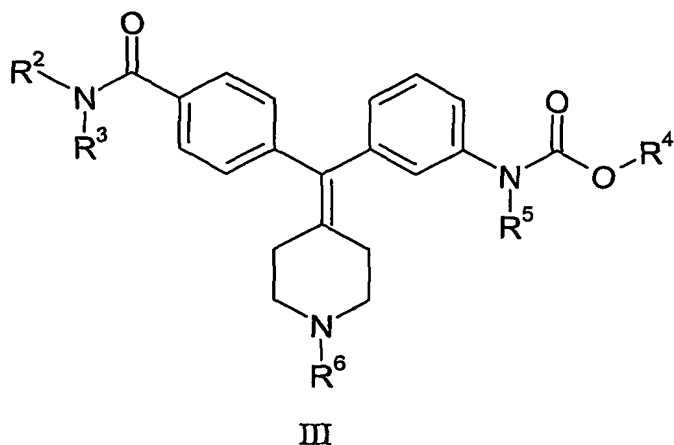
wherein

X is Cl, Br or I;

$R^1$  is selected from  $C_{6-10}$ aryl and  $C_{2-6}$ heteroaryl, wherein said  $C_{6-10}$ aryl and  $C_{2-6}$ heteroaryl are optionally substituted with one or more groups selected from -R, -NO<sub>2</sub>, -OR, -Cl, -Br, -I, -F, -CF<sub>3</sub>, -C(=O)R, -C(=O)OH, -NH<sub>2</sub>, -SH, -NHR, -NR<sub>2</sub>, -SR, -SO<sub>3</sub>H, -SO<sub>2</sub>R, -S(=O)R, -CN, -OH, -C(=O)OR, -C(=O)NR<sub>2</sub>, -NRC(=O)R, and -NRC(=O)-OR, wherein R is, independently, a hydrogen or  $C_{1-6}$ alkyl; and

$R^2$ ,  $R^3$ ,  $R^4$  and  $R^5$  are, independently, selected from hydrogen,  $C_{1-6}$ alkyl, and  $C_{3-6}$ cycloalkyl, wherein said  $C_{1-6}$ alkyl and  $C_{3-6}$ cycloalkyl are optionally substituted with one or more groups selected from -R, -NO<sub>2</sub>, -OR, -Cl, -Br, -I, -F, -CF<sub>3</sub>, -C(=O)R, -C(=O)OH, -NH<sub>2</sub>, -SH, -NHR, -NR<sub>2</sub>, -SR, -SO<sub>3</sub>H, -SO<sub>2</sub>R, -S(=O)R, -CN, -OH, -C(=O)OR, -C(=O)NR<sub>2</sub>, -NRC(=O)R, and -NRC(=O)-OR, wherein R is, independently, a hydrogen or  $C_{1-6}$ alkyl.

12. A compound of formula III:

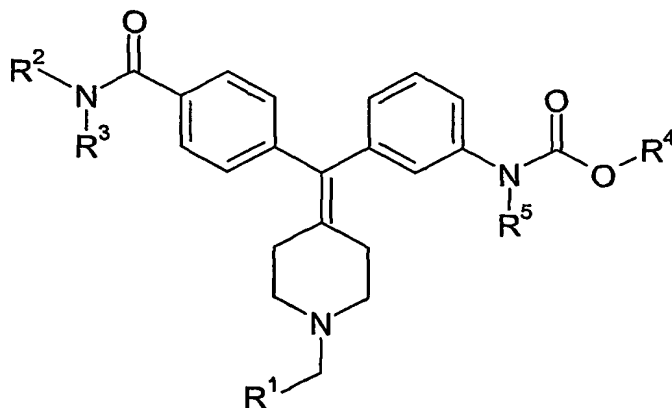


5 wherein

$R^2$ ,  $R^3$ ,  $R^4$  and  $R^5$  are, independently, selected from hydrogen,  $C_{1-6}$ alkyl, and  $C_{3-6}$ cycloalkyl, wherein said  $C_{1-6}$ alkyl and  $C_{3-6}$ cycloalkyl are optionally substituted with one or more groups selected from -R, -NO<sub>2</sub>, -OR, -Cl, -Br, -I, -F, -CF<sub>3</sub>, -C(=O)R, -C(=O)OH, -NH<sub>2</sub>, -SH, -NHR, -NR<sub>2</sub>, -SR, -SO<sub>3</sub>H, -SO<sub>2</sub>R, -S(=O)R, -CN, -OH, -C(=O)OR, -C(=O)NR<sub>2</sub>, -NRC(=O)R, and -NRC(=O)-OR, wherein R is, independently, a hydrogen or  $C_{1-6}$ alkyl; and

10  $R^6$  is selected from -H and -C(=O)-O- $C_{1-6}$ alkyl.

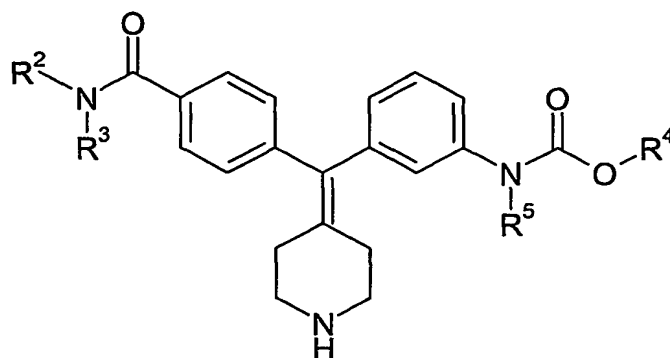
13. A process for preparing a compound of formula I, comprising:



15

reacting a compound of formula IV with  $R^1$ -CHO or  $R^1$ CH<sub>2</sub>-X:

51

IV

wherein

X is Cl, Br or I;

- 5  $R^1$  is selected from  $C_{6-10}$ aryl and  $C_{2-6}$ heteroaryl, wherein said  $C_{6-10}$ aryl and  $C_{2-6}$ heteroaryl are optionally substituted with one or more groups selected from -R, -NO<sub>2</sub>, -OR, -Cl, -Br, -I, -F, -CF<sub>3</sub>, -C(=O)R, -C(=O)OH, -NH<sub>2</sub>, -SH, -NHR, -NR<sub>2</sub>, -SR, -SO<sub>3</sub>H, -SO<sub>2</sub>R, -S(=O)R, -CN, -OH, -C(=O)OR, -C(=O)NR<sub>2</sub>, -NRC(=O)R, and -NRC(=O)-OR, wherein R is, independently, a hydrogen or C<sub>1-6</sub>alkyl; and
- 10  $R^2$ ,  $R^3$ ,  $R^4$  and  $R^5$  are, independently, selected from hydrogen, C<sub>1-6</sub>alkyl, and C<sub>3-6</sub>cycloalkyl, wherein said C<sub>1-6</sub>alkyl and C<sub>3-6</sub>cycloalkyl are optionally substituted with one or more groups selected from -R, -NO<sub>2</sub>, -OR, -Cl, -Br, -I, -F, -CF<sub>3</sub>, -C(=O)R, -C(=O)OH, -NH<sub>2</sub>, -SH, -NHR, -NR<sub>2</sub>, -SR, -SO<sub>3</sub>H, -SO<sub>2</sub>R, -S(=O)R, -CN, -OH, -C(=O)OR, -C(=O)NR<sub>2</sub>, -NRC(=O)R, and -NRC(=O)-OR, wherein R is,
- 15 independently, a hydrogen or C<sub>1-6</sub>alkyl.